Informe

Información del proyecto

JERICO-NEXT

Identificador del acuerdo de subvención: 654410

Sitio web del proyecto

Estado
Proyecto cerrado

Fecha de inicio 1 Septiembre 2015
Fecha de finalización 30 Septiembre 2019

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Coordinado por INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER Francia

Periodic Reporting for period 3 - JERICO-NEXT (Joint European Research Infrastructure network for Coastal Observatory – Novel European eXpertise for coastal observaTories)

Período documentado: 2018-09-01 hasta 2019-09-30

Resumen del contexto y de los objetivos generales del proyecto

The context of JERICO-NEXT

The ocean is critical to the Earth’s global systems by regulating weather and climate and the coastal...
The ocean is the most productive, with a biological production greater than 50% of the total ocean, and the most dynamic part with strong spatial and temporal variability. Its productivity makes it a significant source of resources and services for mankind. It is also the part of the world ocean which is located directly in contact with human populations which is most sensitive to anthropogenic disturbance.

Despite the importance of the coastal ocean and the numerous undergone threats, the more complex processes acting in the coastal ocean are less known than those playing in the deep seas and our understanding of the links between physics, biology and ecology is rather limited.

The overarching objective of JERICO-NEXT is to strengthen and enlarge a solid and transparent European network of coastal observatories and to provide an operational service for the timely, continuous and sustainable delivery of high quality environmental (physical, biogeochemical and biological) data and information related to the marine environment in European coastal seas. By doing so, JERICO NEXT will help the research community to provide the best possible quality indicators for the European Marine Strategy Framework Directive (MSFD) and to promote joint research initiatives and standardisation, increasing support to the European industrial sector of coastal instrumentation and monitoring services.

JERICO-NEXT includes nine high-level objectives that fall in three main categories:

Obj1) Strengthen the infrastructure of the European network of coastal observatories as the coastal sector of the future European Ocean Observing System (EOOS).

Obj2) Support European coastal research communities by sharing existing networked observatories.

Obj3) Enable free and open access to data.

Obj4) Enhance the readiness of new observing platform networks by increasing the performance of sensors in terms of Technology Readiness Levels (TRL)

Obj5) Create a step change in the observing system performance by integrating innovative sensors and instruments developed in Europe.

Obj6) Improve the links between physical and biogeochemical data with biological processes.

Obj7) Demonstrate the adequacy of the observing technologies and monitoring strategies to provide the information necessary to address a selected set of major environmental issues.

Obj8) Improve the cooperation with other observing infrastructure communities.

Obj9) Propose a midterm roadmap for coastal ocean observatories through a permanent dialogue with stakeholders.

The work performed during the project is organized according to four main axes:

Axis 1: Elaboration of strategy toward the sustainability of the JERICO-RI
The adequacy of present observation strategies to meet key scientific and societal challenges in the coastal ocean has been analysed and assessed. Results are reported as part of deliverable D1.1 and D1.2 under validation

Axis 2: Harmonization of procedures and technologies at the infrastructure hardware level and at the software level with the management of the data flow
The initiatives planned to promote and facilitate the harmonization of technologies, methodologies and procedures across the JERICO observing network in the JERICO-NEXT project are still ongoing. The
last deliverables in Best practices are planed for the 1 quarter 2019.

The expected returns are improved coordination on technical and technological issues, gains in operational efficiency, better use of network resources, and more streamlined services and products. With regards to the harmonization of the data flow, integrating new data types: the biology ones, the work performed in accordance with the scheduled implementation as the expected documents were delivered.

Axis 3: Technology and methodology developments with field deployments as proof of concepts

With regards to the methodology and technology developments, the work performed during the first reporting period is in accordance with the DOA. Within these activities, phytoplankton sensors were extensively analysed and tested/compared; new developments on HF Radar current observations and analysis were achieved; the operational capabilities of the Coastal Profilers were upgraded and some testing took place; 8 marker species and genes have been identified as potential targets of interest for Microbial and Molecular Sensors; three separate Combined Carbonate Sensor Systems have begun development; the design production and tests of the Integrated multi-sensors towed video system was achieved and technological developments on measuring/observing the Organic Matter Mineralization were done. Activities on Observing System Experiment/Observing System Simulation Experiment (OSE/OSSE) were delayed and rescheduled due to changes in the work package leader.

Axis 4: Promotion and opening of the infrastructures and its service to any users.

The promotion and opening of the infrastructures and its services to any users stands in the opening of the so-called i) Virtual Access, and of ii) the Trans National Access (TNA), with the iii) usual communication and outreach activities in addition to the advertising of the 2 formers.

For the Virtual access, the partners provided a short summary for advertising their data portal on the JERICO-NEXT website. The infrastructures participating to the TNA Call were prepared to host users (MS53). Their descriptions, including services offered, were published in the TNA website. For the whole TNA call process, 36 proposal were received and 30 were eligible. 25 projects are selected for TNA access.

Avances que van más allá del estado de la técnica e impacto potencial esperado (incluida la repercusión socioeconómica y las implicaciones sociales más amplias del proyecto hasta la fecha)

JERICO-NEXT is making an important step forward by leading key actions. Amongst actions foreseen in the work plan we can point out key ones and some associated outcomes exposed here after with regards to the:

i) observation and monitoring strategy of European Seas,

ii) implementation of an harmonised system gathering diverse platforms and sensors types, and delivering a harmonised and qualified data flow,

iii) investigation on the needed developments in both the sensors/systems technologies and the methodologies, with field proof of concepts in agreement with the strategy,

iv) promotion and opening of this harmonised infrastructures and services to a panel of diverse users beyond the national and sectorial usual fragmentations.

For WP1, The future strategy of the JERICO-RI infrastructure has been produced (Deliverable 1.2 for the scientific strategy and Deliverable 1.4 for the implementation and management ones). The possible path towards the ESFRI roadmap for the JERICO-RI has been clarified in Deliverable 1.4.
For WP4, all data acquisition from field work have been finished, and most part of data is been processed and analysed. The main results of the 6 JRAPS are clearly described in Deliverables 4.4 and 4.5.

For WP6, virtual access, many improvements and services has been developed to give a better access and services to the users (deliverables 6.2 and 8.14).

For WP7, Trans National Access. on 40 projects proposed, 30 are selected and 28 can be realised. The main results are in Deliverables 7.3 and 8.11.

For WP8, we defined a new logo for JERICO-RI.
Six scientific topics of JERICO-NEXT

JERICO-S3 infrastructures and Marine Protected Areas

- Pilot Super Site (PSS)
- Integrated Regional Site (IRS)
- Transnational Access (TA)

Marine Protected Area (MPA):
- Marine
- Coastal

JERICO-RI Sites and infratrutues in Europe
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